

Talkin' about Talks

Tim Linden





**DON'T START
YOUR SPEECH
LIKE THIS!**



Main Takeaways

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2.) While each person must operate within themselves - there are factual methods to employ for giving a good talk.

3.) In physics - giving a good talk has a small opportunity cost.

Why are You Giving a Talk?

Invitation to “Next Frontiers in the Search for Dark Matter”: 23–27 September 2019 at GGI ➤ Inbox x



Francesco D'Eramo <fderamo@pd.infn.it>

Wed, Jan 16, 2019, 10:33 PM



to linden.70, Francesco ▼

Dear Tim,

I am writing to **invite** you to give a **talk** at the conference “Next Frontiers in the Search for Dark Matter”. The program will be held this year at the Galileo Galilei Institute (GGI) for Theoretical Physics in Florence from September 23rd to September 27th. Here is the indico webpage of the event: <https://indico.cern.ch/event/782948/overview>

Your **talk** will be in the session “Indirect Searches”. You will have 25 minutes for the presentation plus 5 minutes for questions and discussion.

The conference will take place during the 5th week of a longer (seven week) workshop at GGI: <https://www.ggi.infn.it/showevent.pl?id=291>

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- 6.) This is formally a job talk.

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- 6.) The wifi is better inside of the conference room than in the hall

Who Is The Audience?



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4.) Strive to elicit the exhilarating feeling of dawning comprehension in the minds of your listeners.

Preparing for the Talk



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“Sometimes, magic is just someone spending more time on something than anyone else might reasonably expect.” - Teller



Preparing for the Talk

1.) Storyboard

- What does the audience need to know? / What is extraneous?
 - o Why -> How -> What

- Set up a central conflict or theme.

- Prepare transitions.

- Engage with the history of the topic (fluency)

Tell a story about the future
Plan your overall story by adding a few sticky notes to each frame. Next, write captions to create a cohesive narrative. Finally, add illustrations to each frame to make the story clear, lively, and memorable.

TIP
Use the Images, Icons, or Draw tools to create simple illustrations of each step. If you don't feel comfortable drawing, just make the illustrations using a few icons.

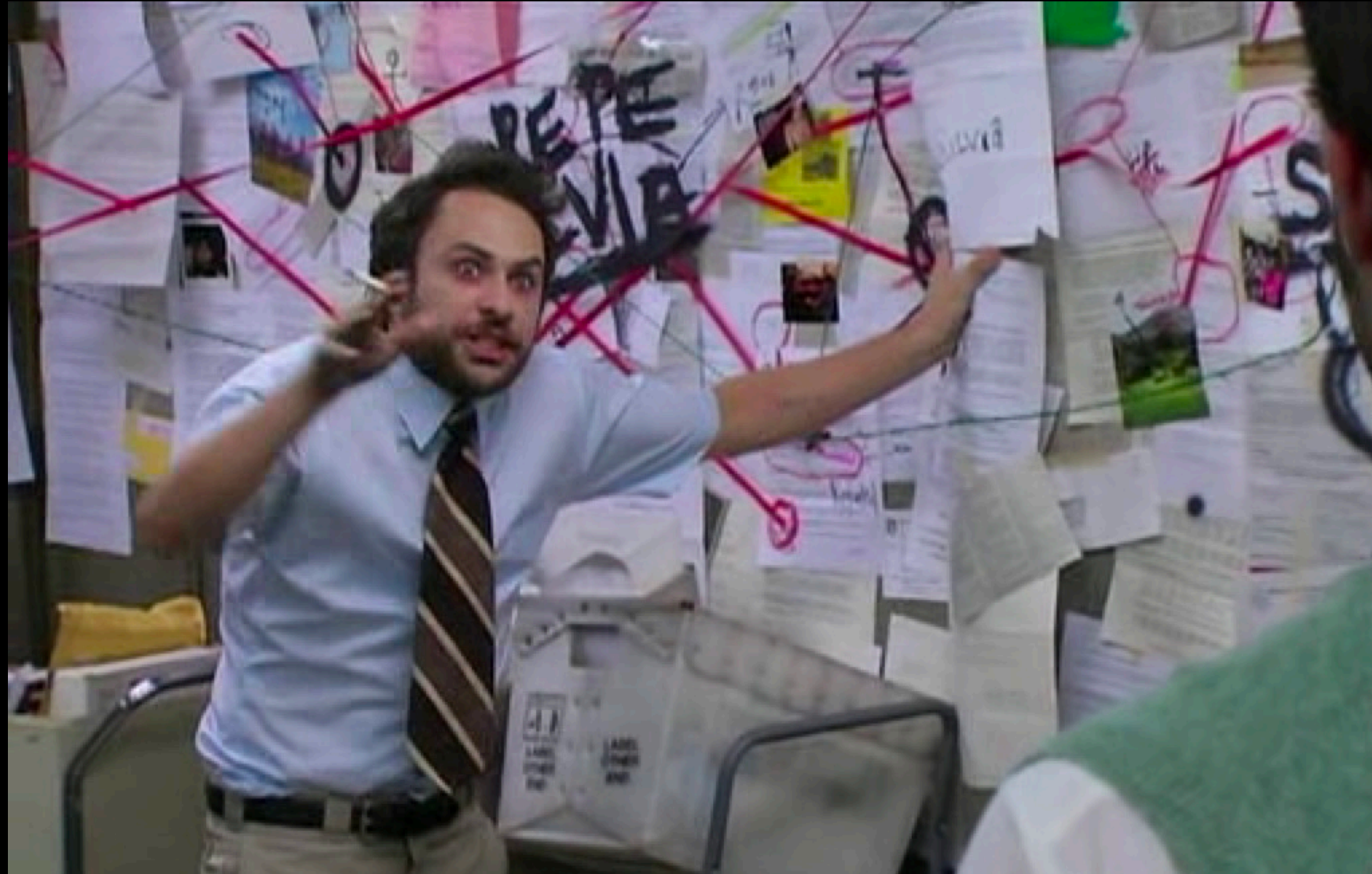
The storyboard consists of eight rectangular frames arranged in two rows of four. Each frame is intended for a visual illustration. Below each frame is a line of text labeled 'Caption' for writing a narrative description. A central tip box provides guidance on using drawing tools or icons to create simple illustrations.

- The talk should NOT reflect how long each step took you.

Preparing for the Talk

2.) Clarity

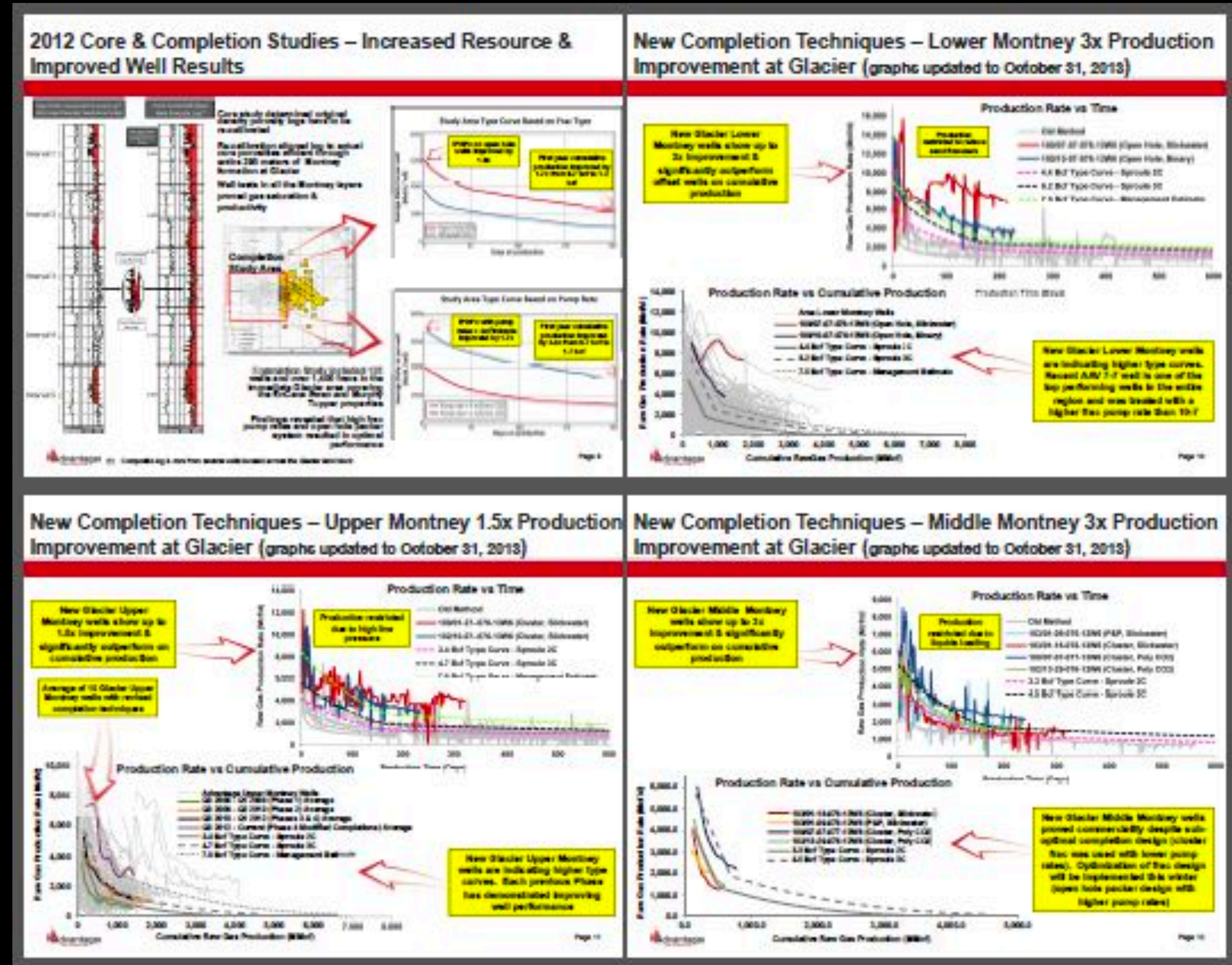
- A talk is not a mystery novel.
- Ruthlessly eliminate extraneous information.
- The lay person will only understand one new thing, the expert might understand 3.



Paper Figures != Talk Figures

3.) Slides

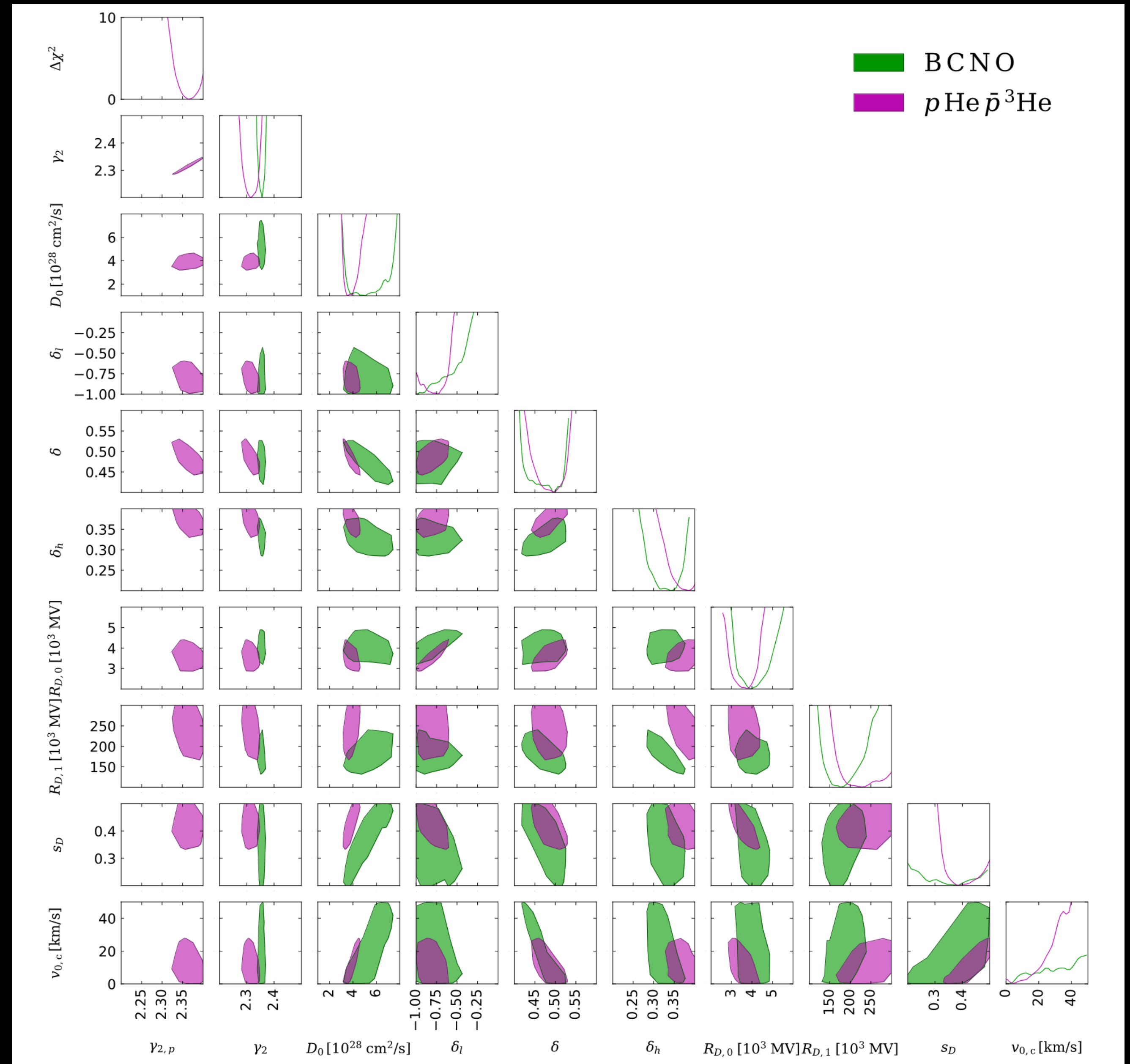
- The slides are not the point - YOU are the point.
- Use the time-dependence of slides — force the audience's attention.
- Pair complex slides with simple explanations, and complex explanations with simple slides.



Preparing for the Talk

3.) Slides

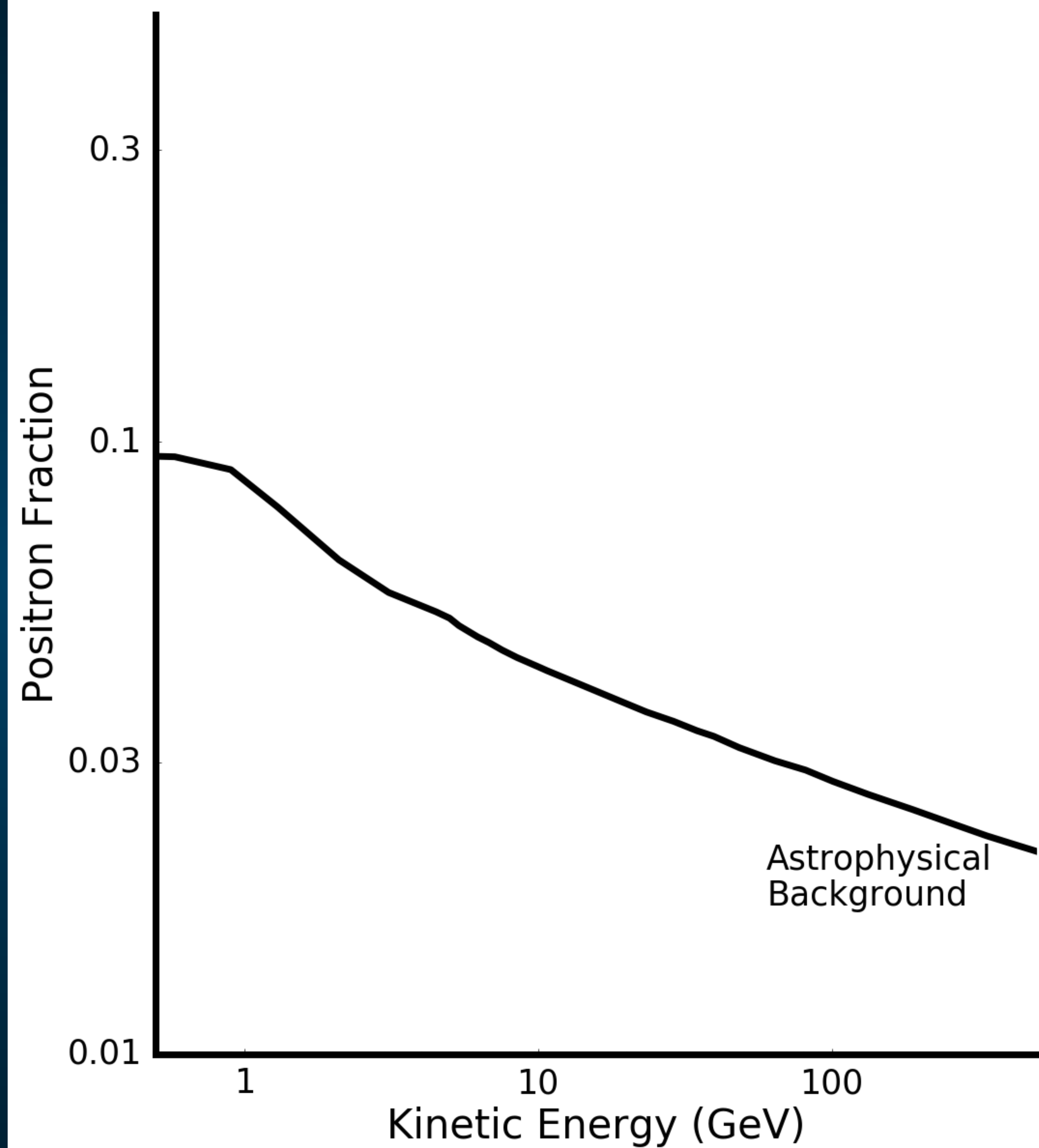
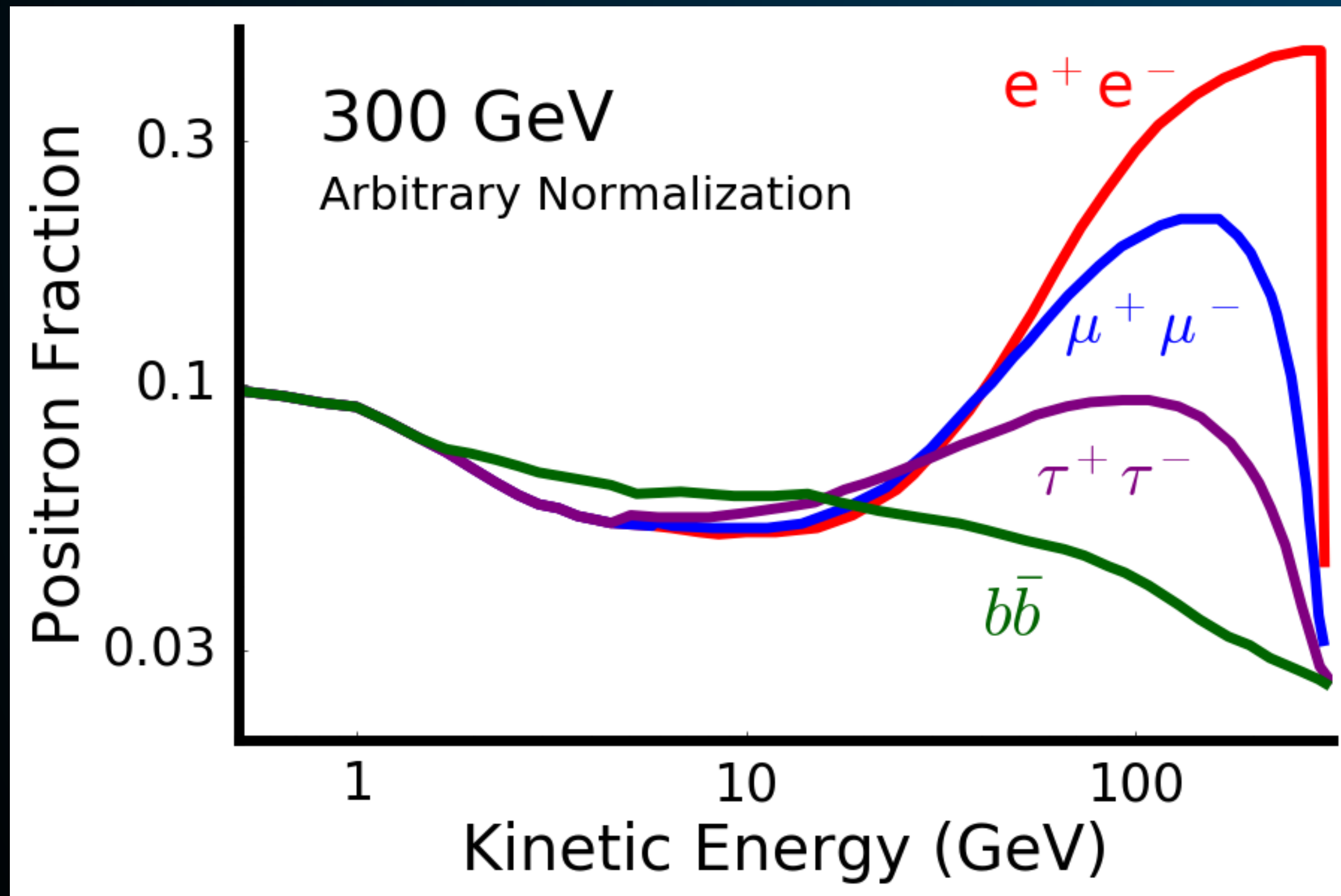
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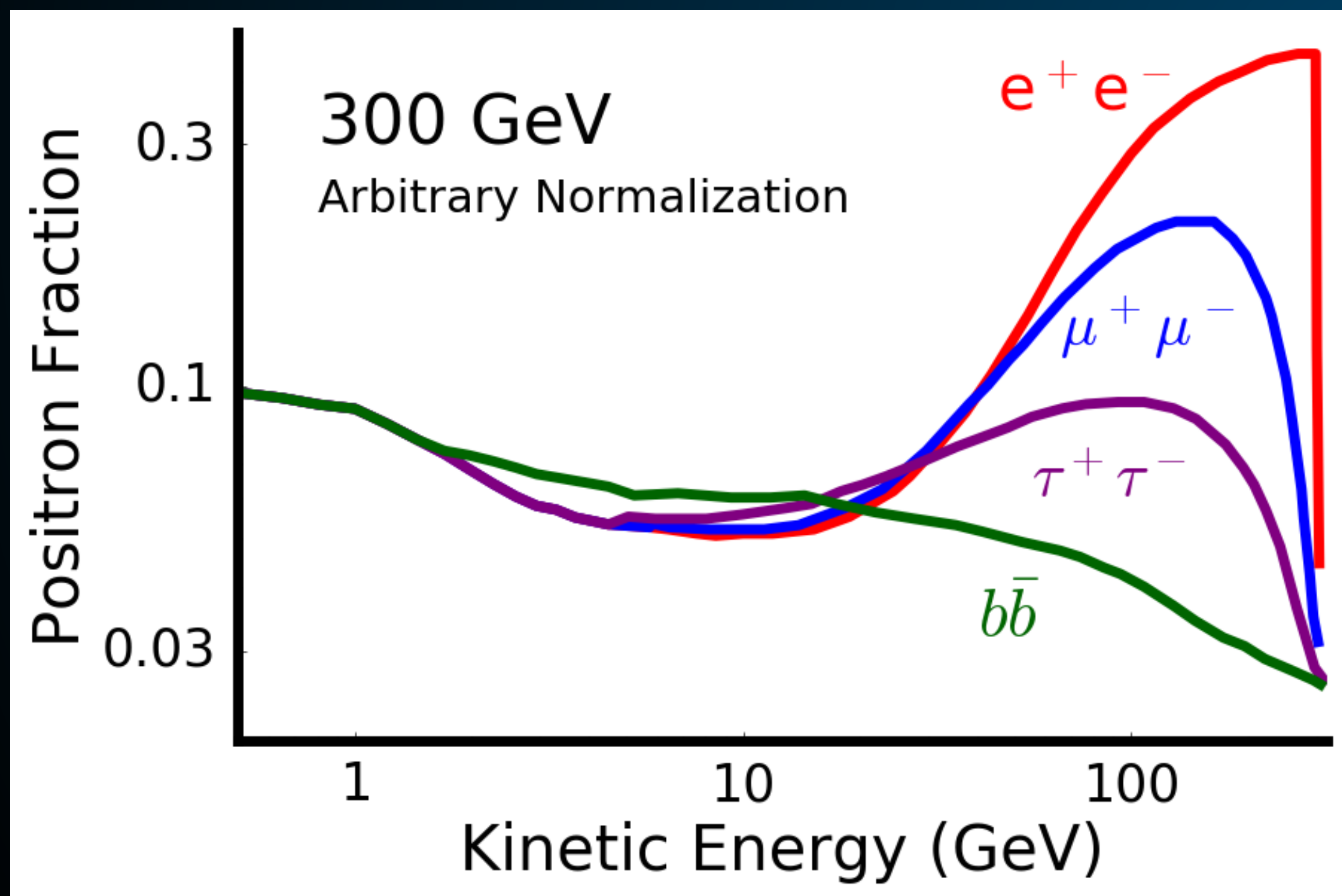
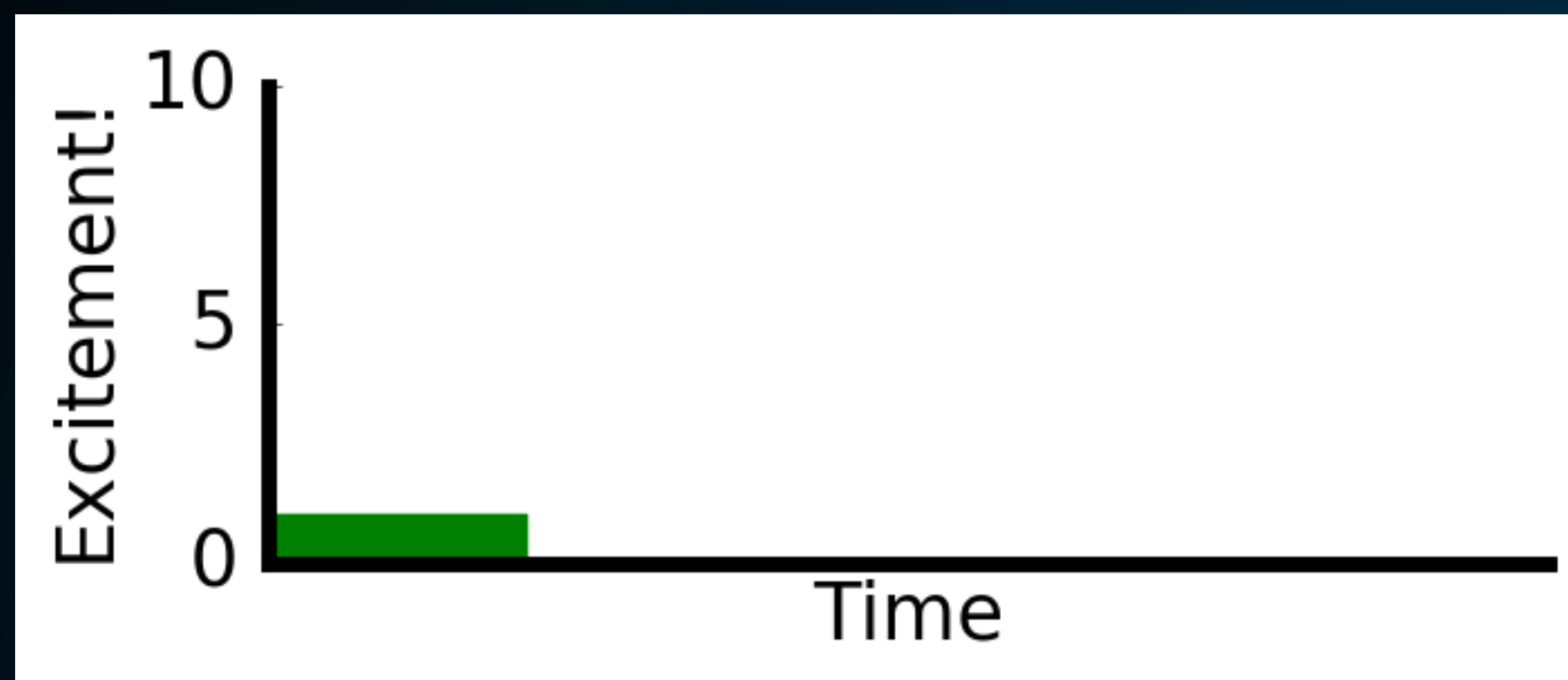
The Positron Excess

Astrophysics - Slowly Decreasing

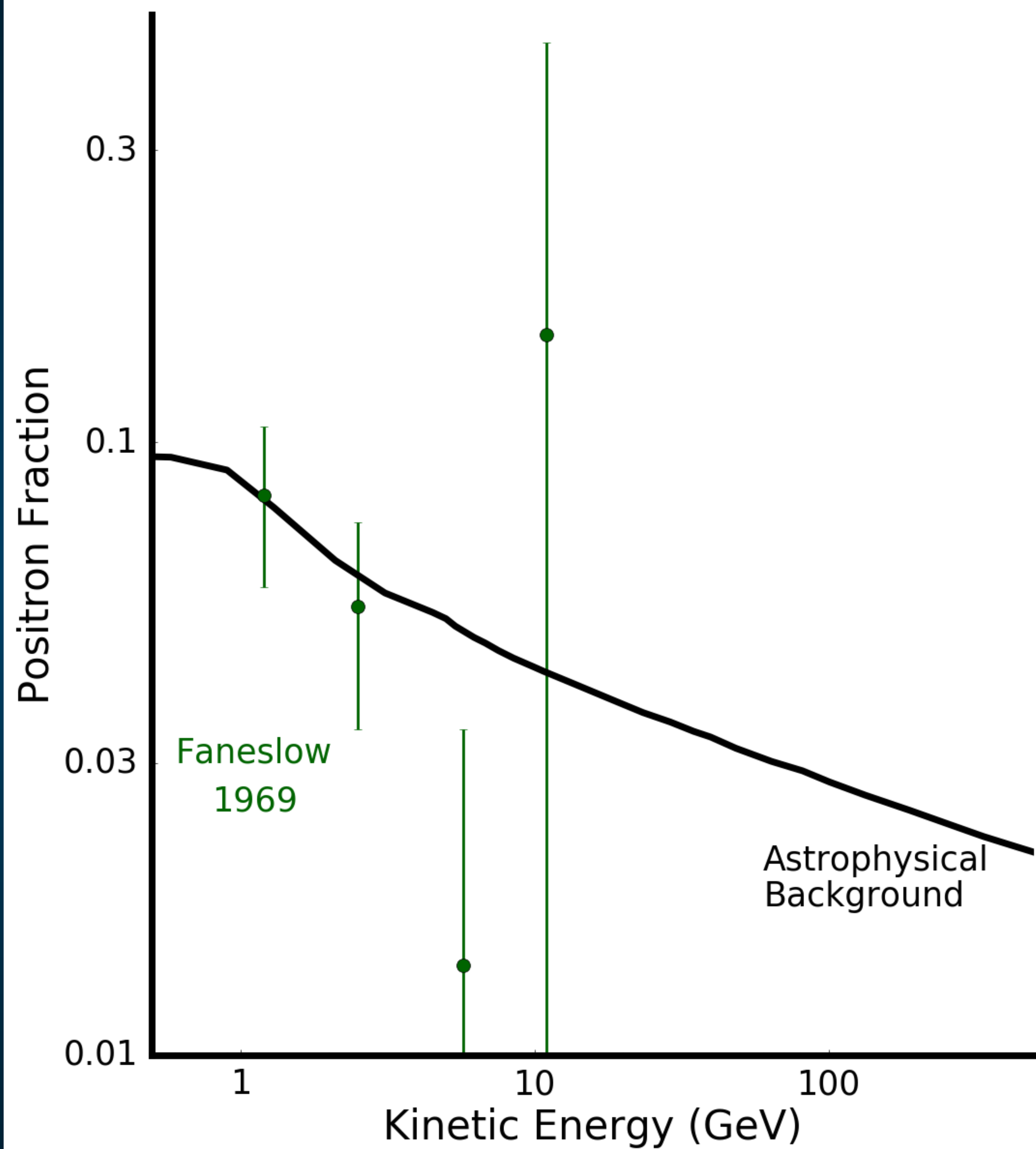
Dark Matter - Sharp Bump!



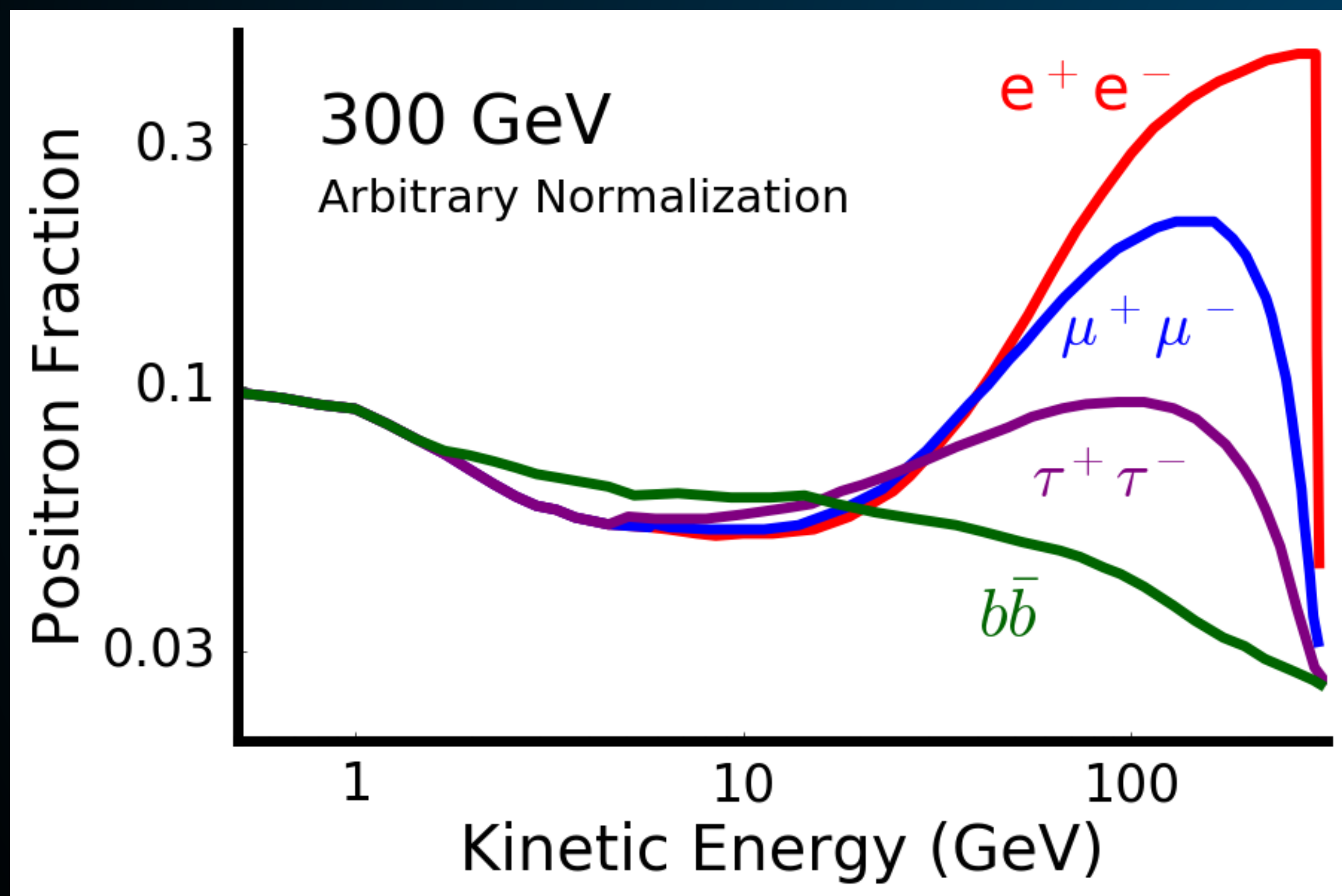
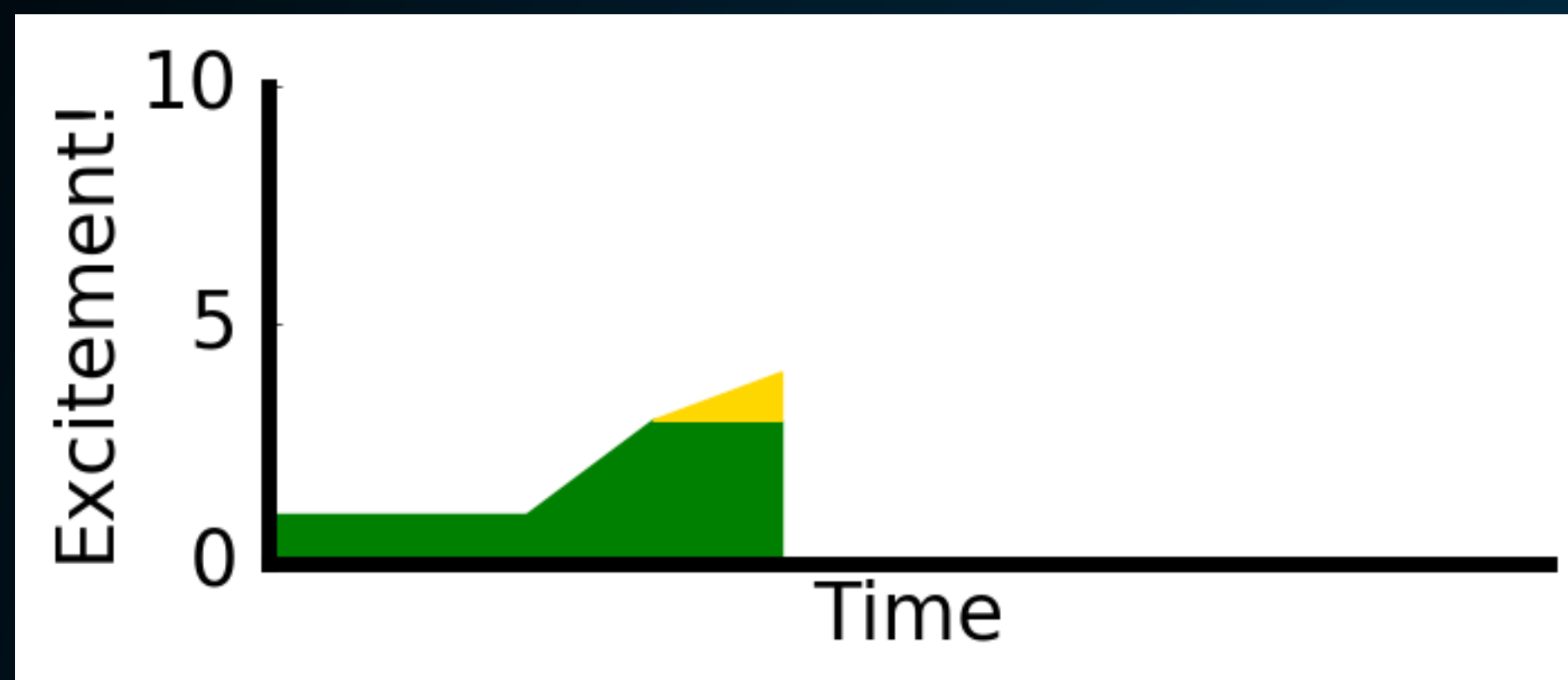
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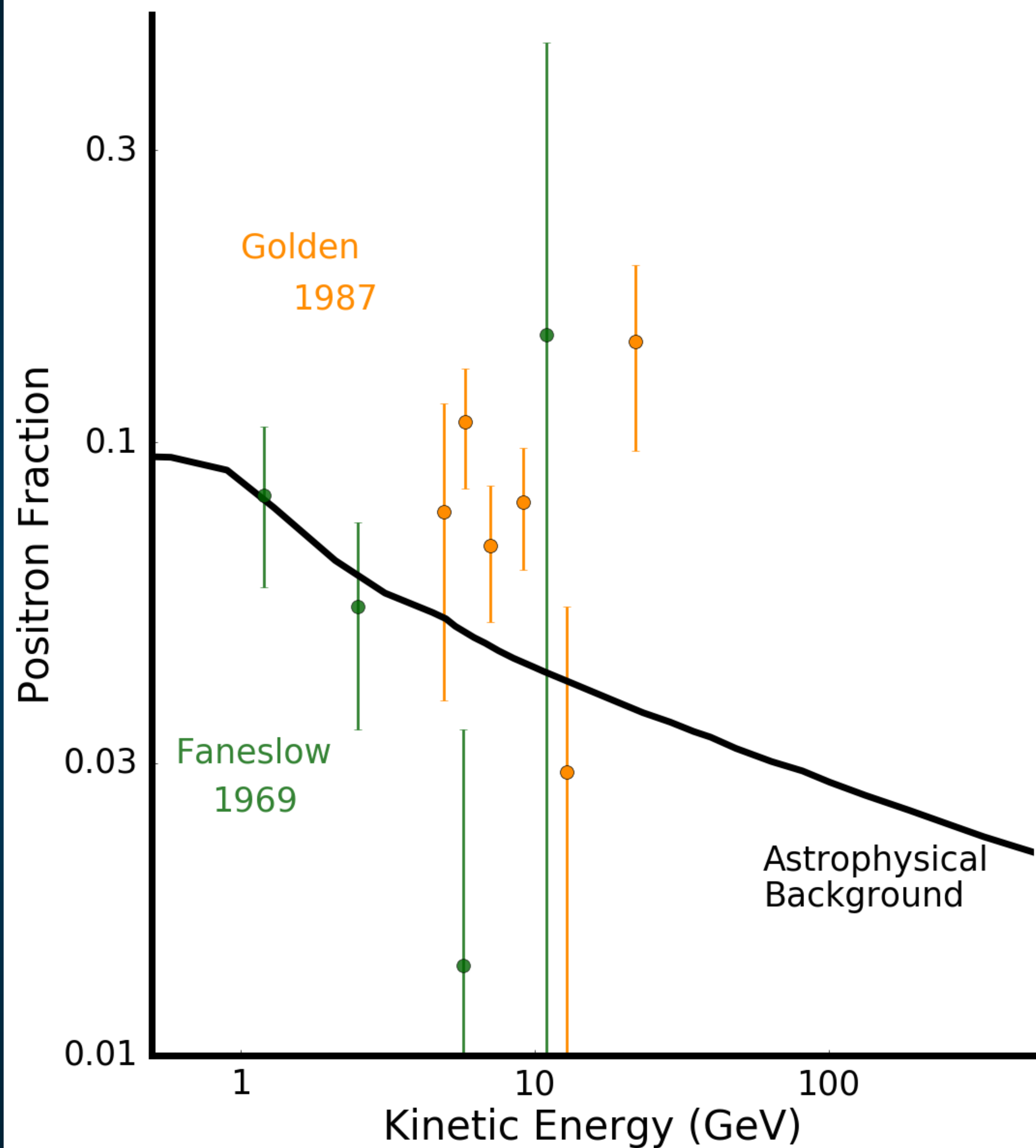
(Not an exhaustive list of observations)



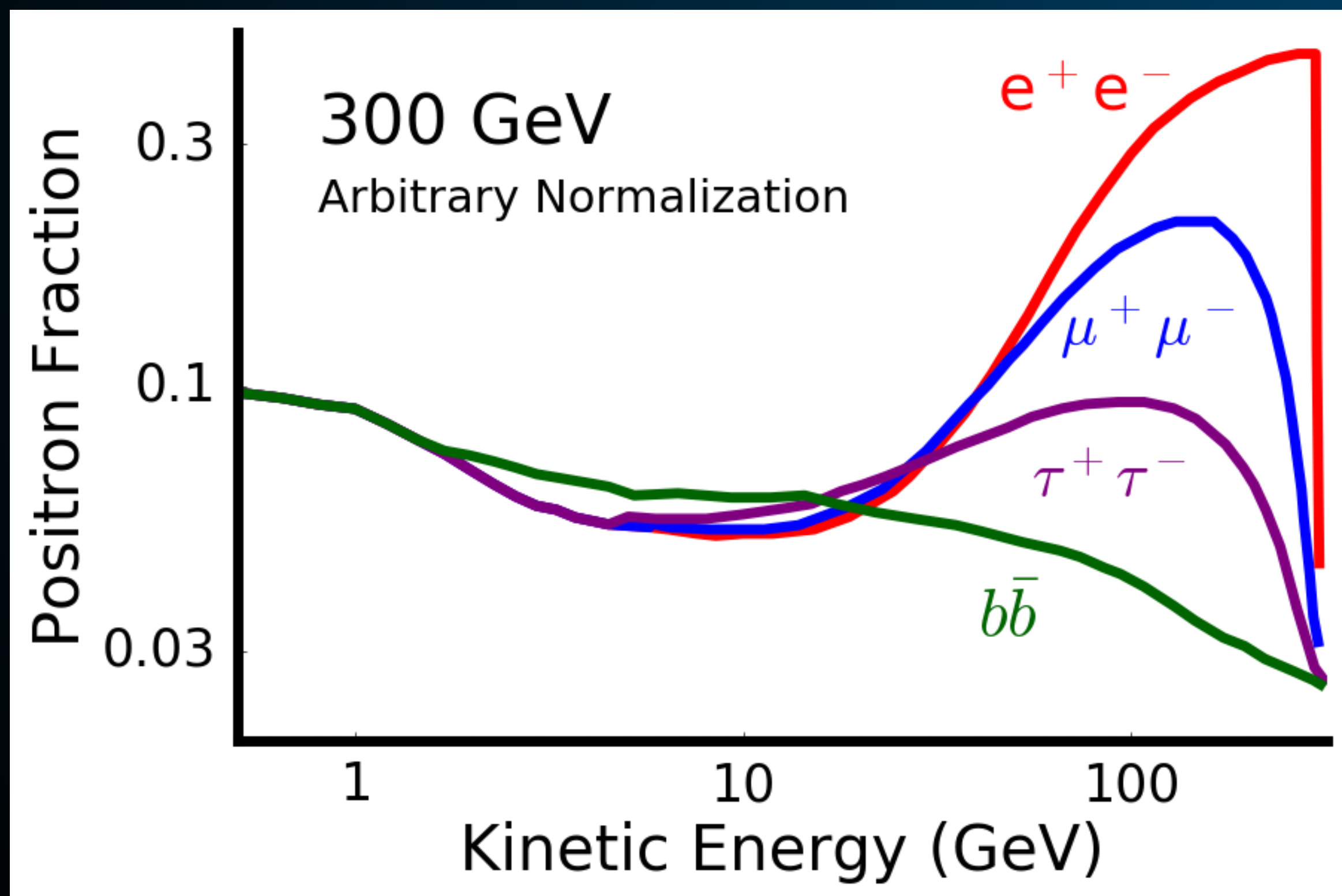
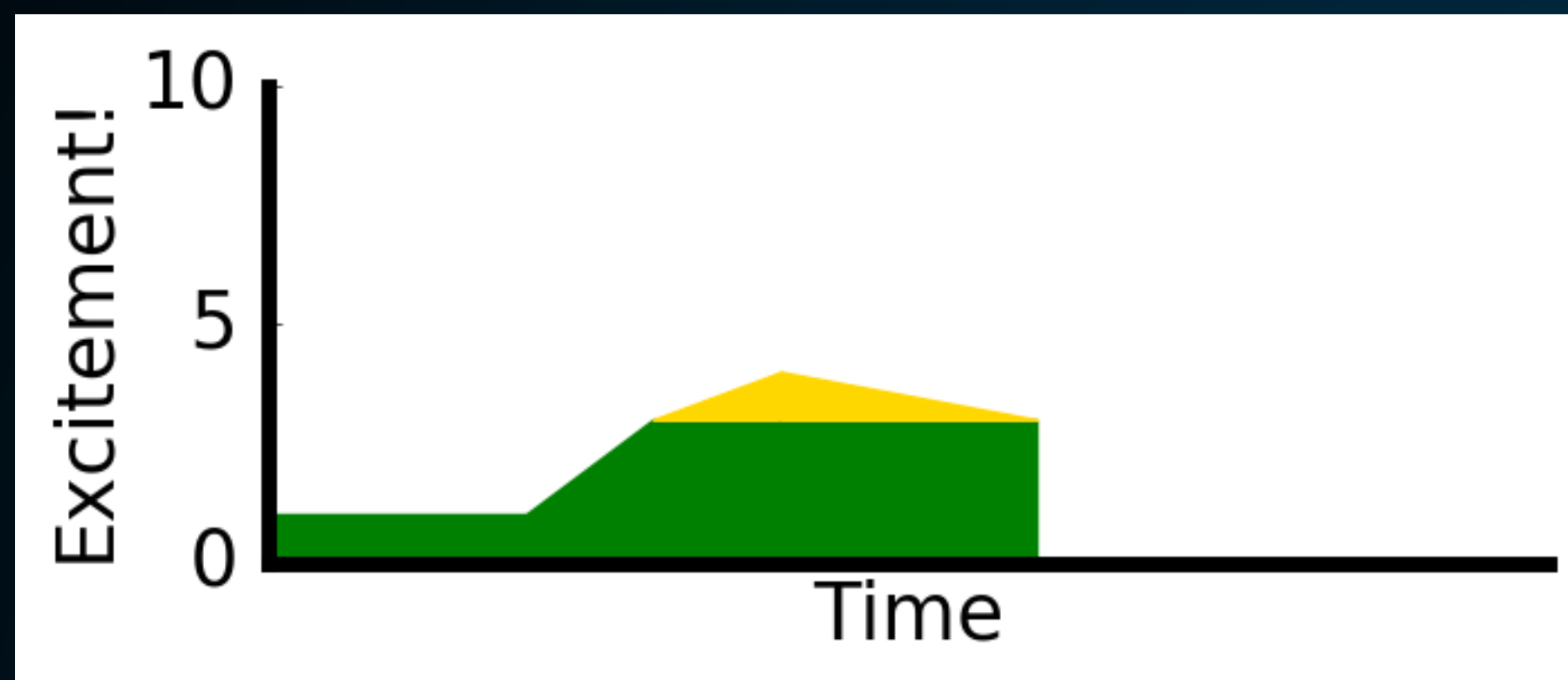
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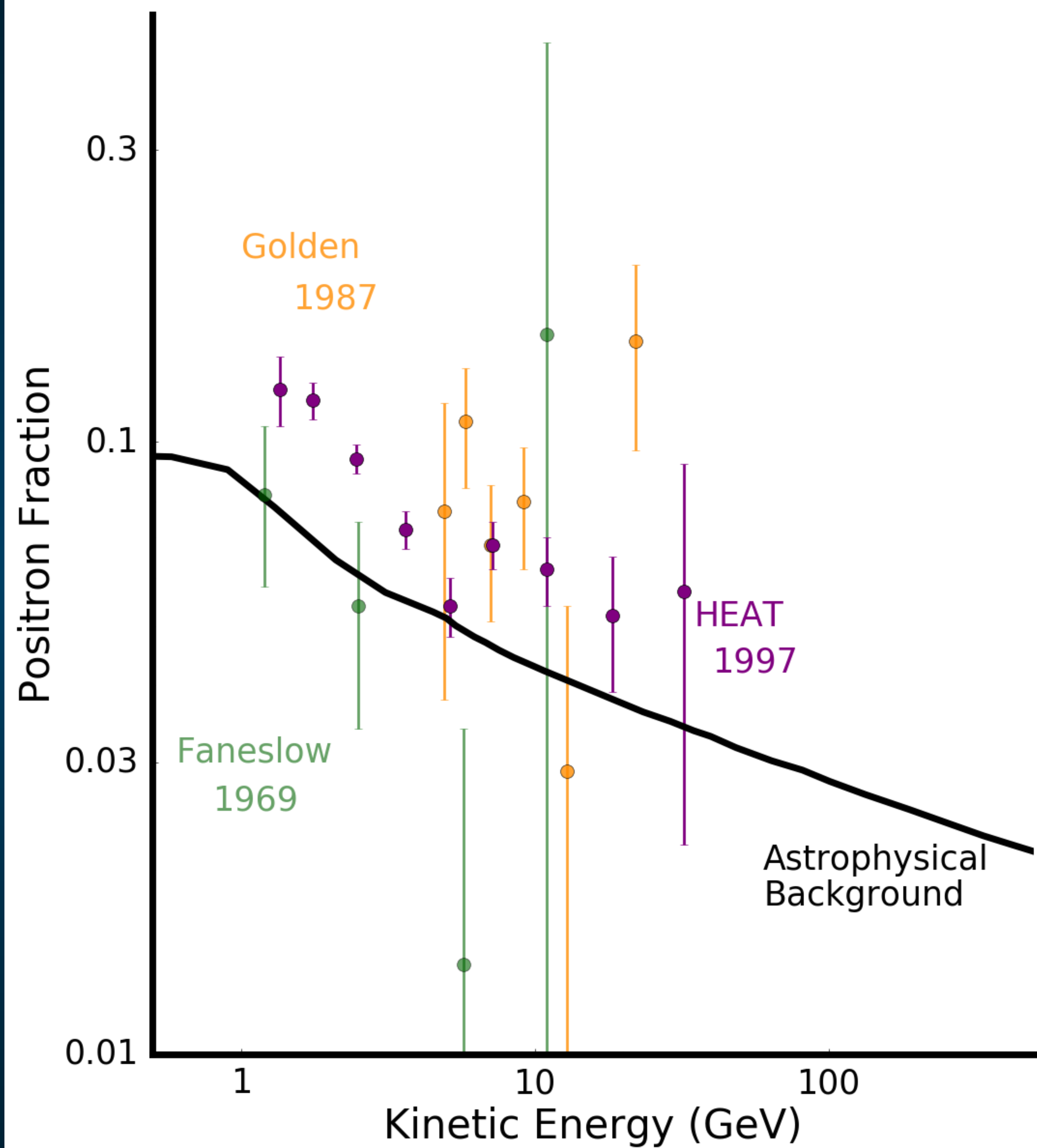
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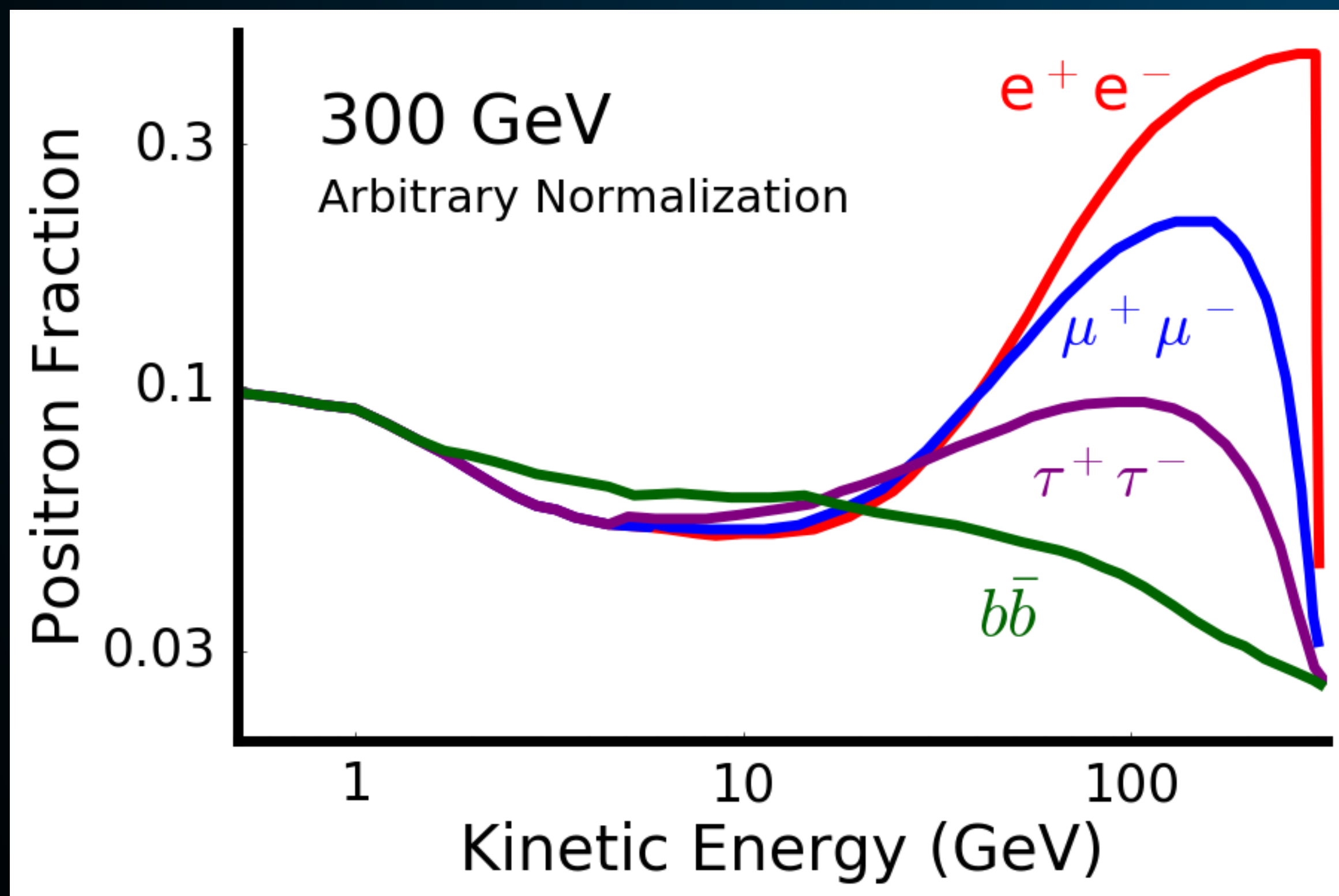
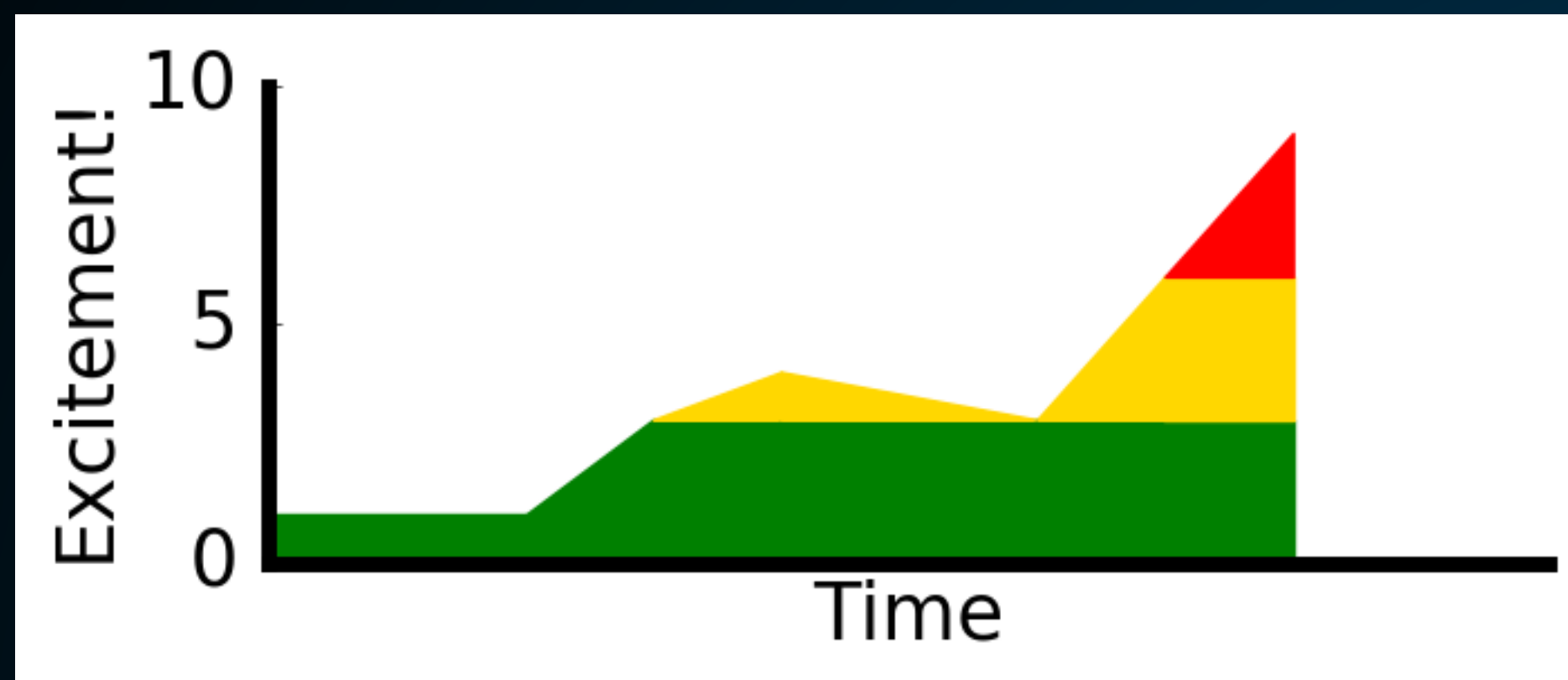
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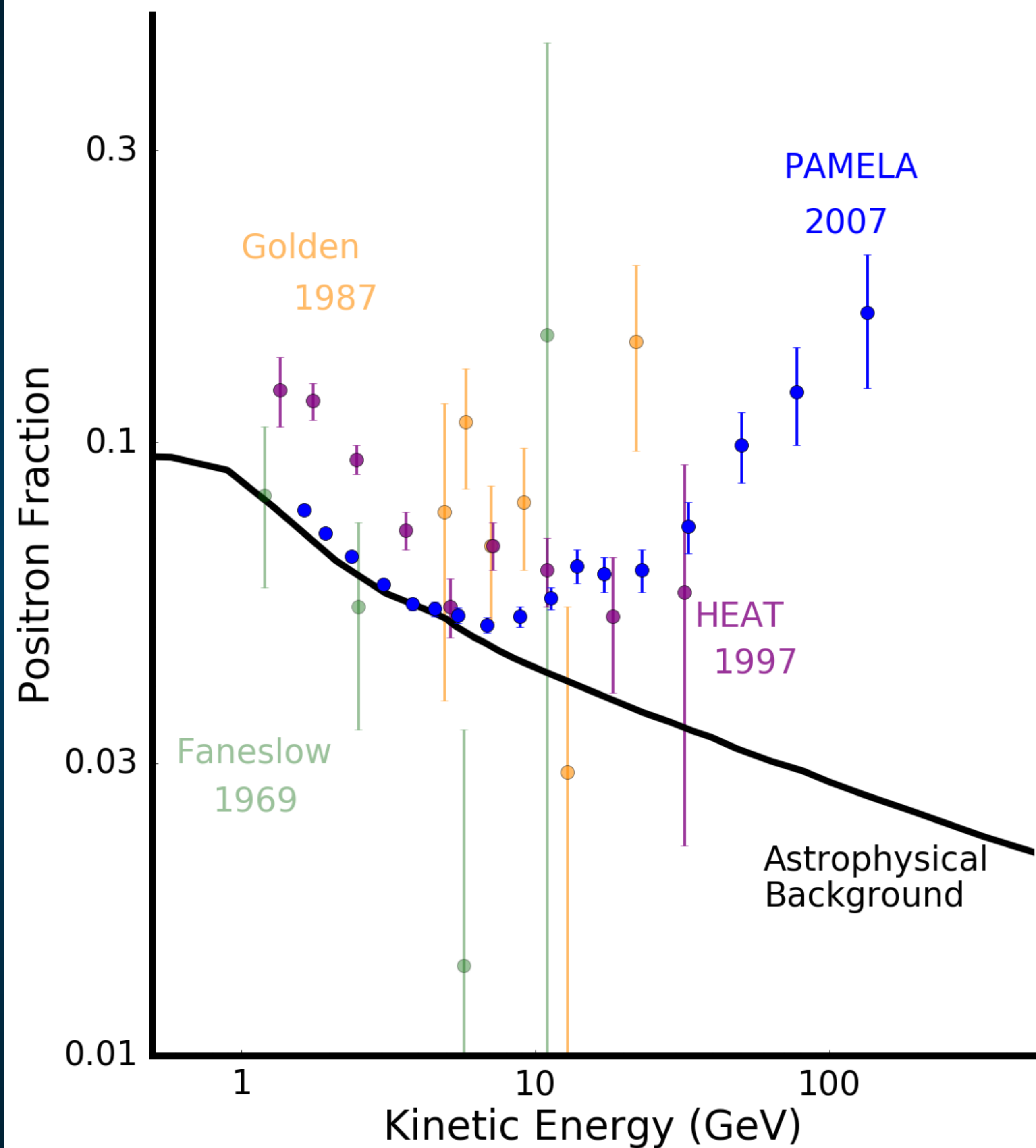
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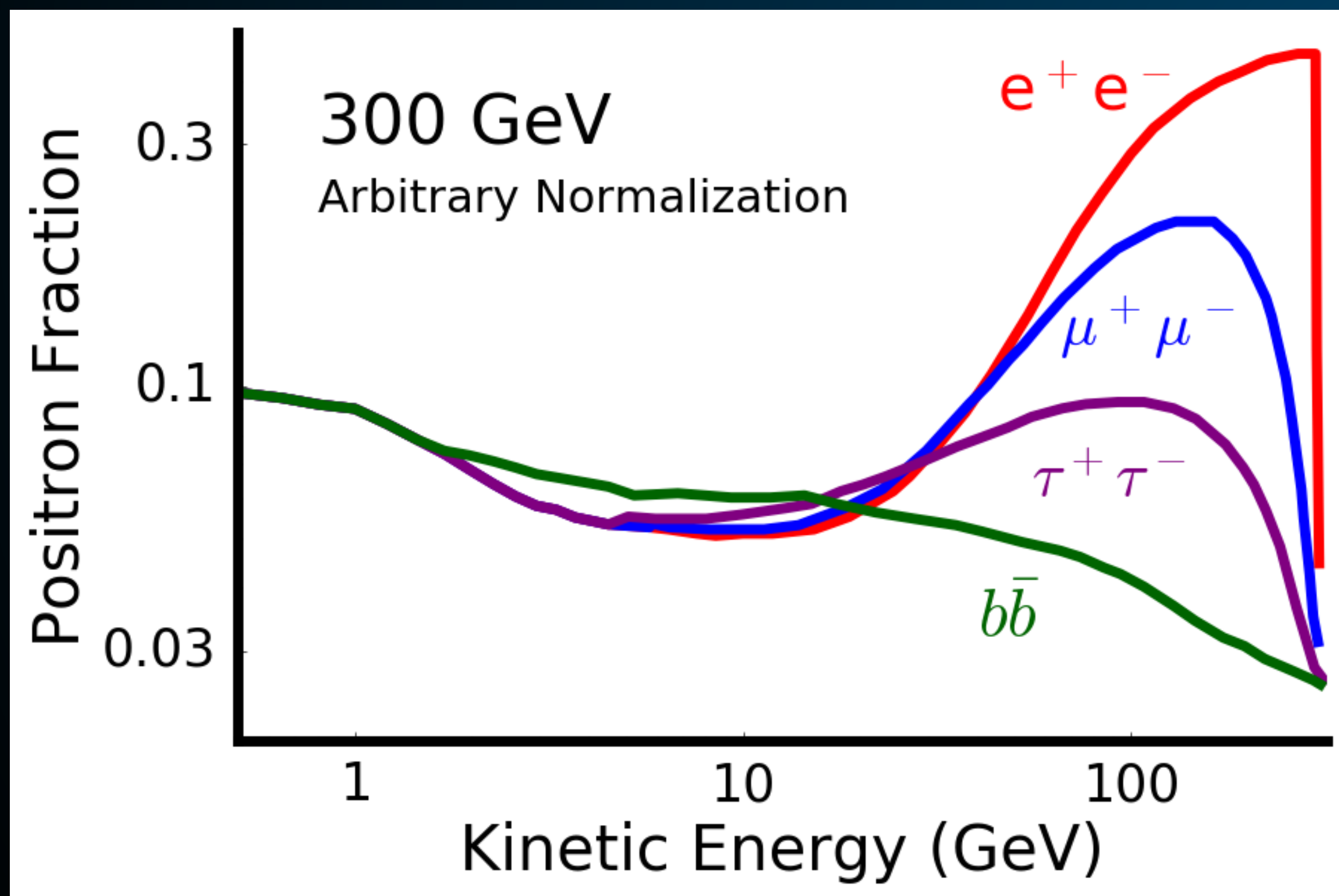
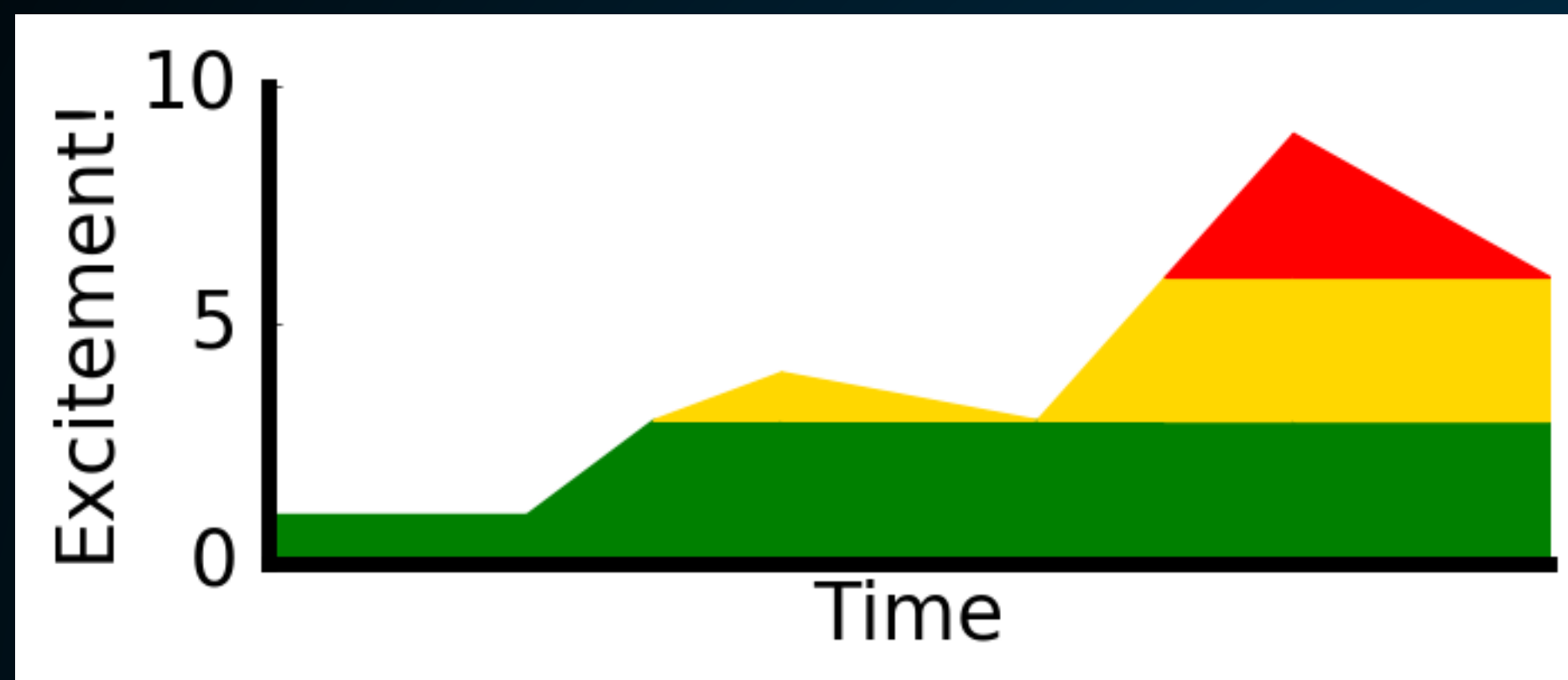
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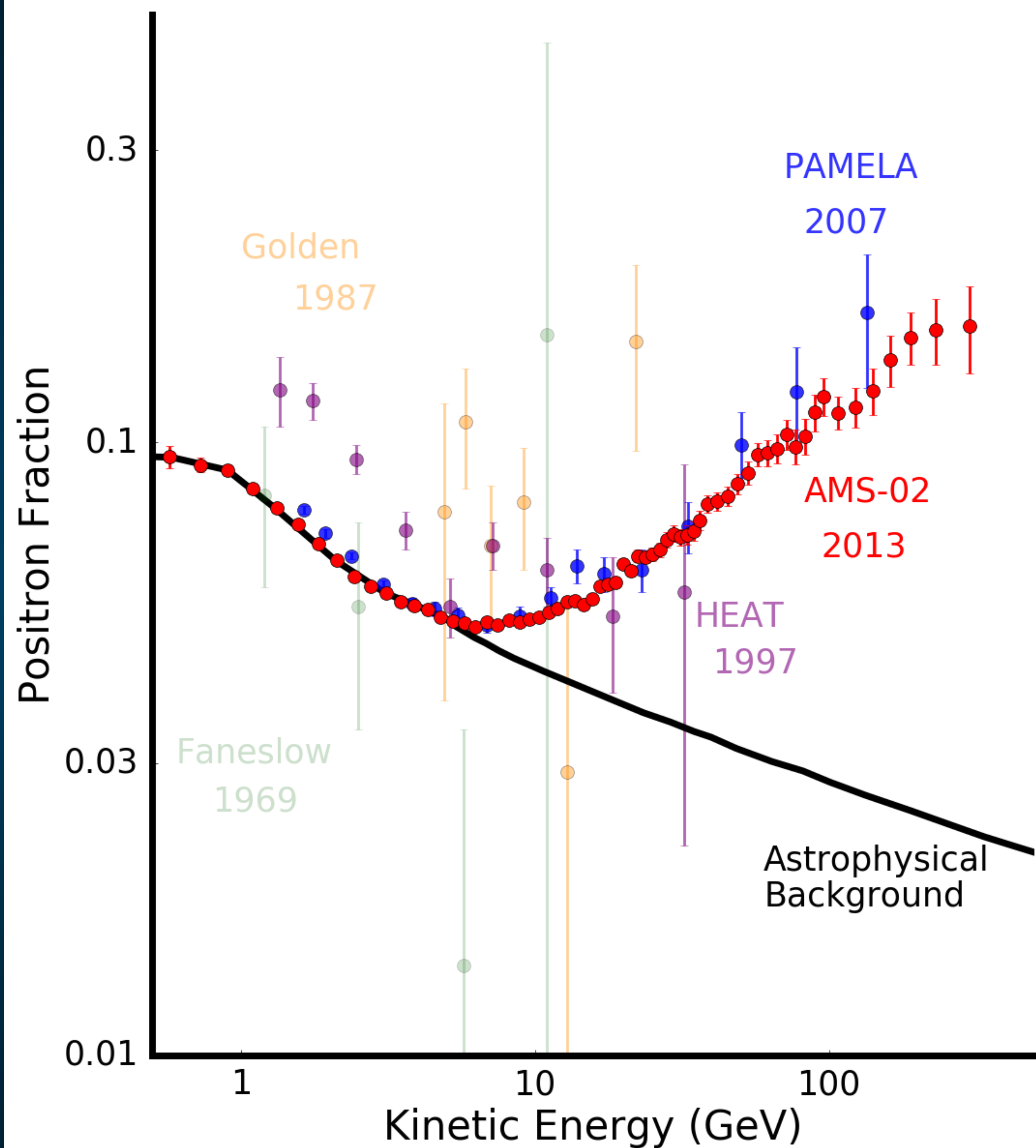
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Preparing for the Talk

4.) Targeting the Audience

- Start slow, make sure everybody understands something.
- Go over the audiences head ONLY briefly, with intention, and the goal of reconstructing afterwards.
- Adjust in real time - prepare at multiple levels.



- Have the audience members worked on this topic?

Cite them!

Setting the Scene

- Use the talks before you.
- Is the session parallel (more experts) or plenary (broader audience)?
- How will the audience feel at the beginning of the talk?

09:00	Overview of direct DM searches	Jocelyn Monroe	09:00 - 09:25
	XENONnT direct dark matter searches: the latest results	Cecilia Ferrari	09:25 - 09:45
	First results from the WIMP dark matter search with the LZ experiment	Vitaly Kudryavtsev	09:45 - 10:05
10:00	Recent Low Energy Results from the Recoil Directionality (ReD) Experiment	Ivone Albuquerque	10:05 - 10:20
	Direct detection of light dark matter from evaporating primordial black holes	Roberta Calabrese	10:20 - 10:30
	Coffee break		10:30 - 11:00
11:00	Perspectives and challenges of multi-messenger astronomy including gravitational-waves	Marica Branchesi	11:00 - 11:25
	GRB-UHECRs connection after detection of the B.O.A.T. GRB 221009A	Soebur Razzaque	11:25 - 11:50
	The Fermi high-energy view of GRB 221009A, the "brightest of all time" or B.O.A.T. GRB	Elisabetta Bissaldi	11:50 - 12:10
12:00	Detection of early (prompt) emission from short GRBs in the VHE gamma-rays: ET, CE and CTA in action	Biswajit Banerjee	



The Performance

- Rigorously prepare the first minute.
- Use changes of pitch, tempo, and physical motion.
- Keep track of your angle.
- Force Questions - Show off the depth of your knowledge.
- Rigorously prepare the last minute.



The Performance

“Wear your character as lightly as a cap.”

- You are always you - but the tone, pitch, pace, and presentation should vary with (and respond to) the audience.



You are performing - and you can play a character

Debriefing

- Follow up with anybody who asks a question after the talk.
- Take notes about the talk soon after.
- Watch your own talks on video (sorry!)



Main Takeaways

- 1.) Giving a good talk is a skill.
- 2.) While each person must operate within themselves - there are factual methods to employ for giving a good talk.
- 3.) In physics - giving a good talk has a small opportunity cost.

How Do You Make an Invisible Transition?

- In Keynote:
 - Make a box of some color in a corner of the slide that you know about.
 - Set the alpha of the box to 0 (making it invisible).
 - Make another invisible button on the target slide that takes you back.
- Look like a genius who can anticipate good questions.